

ON SOME HAWAIIAN HEMIPTERA - HETEROPTERA.

BY G. W. KIRKALDY. HONOLULU, HAWAIIAN ISLANDS.

Fam. MYODOCHIDÆ.

In the "Fauna Hawaiiensis—Hemiptera," in dealing with White's species of "*Cymus*," I had specimens before me of *C. criniger* only; since then I have seen White's *C. calvus*, and another species allied thereto, but with substylate eyes; these three form three genera, distinguished as follows:

1. Eyes substylate, prominent, extending laterally well beyond the pronotum, which is distinctly longer than wide; tegmina scarcely punctured *Nesomartis*, gen. nov.
- 1a. Eyes sessile, not prominent, not extending laterally so far as the transverse pronotum; tegmina strongly punctured 2.
2. Ocelli as far from one another as from an eye. Pronotum with a distinct transverse impression basal of the middle
Nesocymus, gen. nov.
- 2a. Ocelli much nearer to the eyes than to one another. Pronotum not transversely impressed *Sephora*, Kirkaldy.

The character of the nonpunctuation of the tegmina in *Nesomartis* would remove it from the Cyminæ in the usual acceptation of the subfamily, but it is obviously closely related to *Nesocymus* and *Sephora*. I cannot find any character to separate satisfactorily the Cyminæ from the Astacopinæ (Lygæinæ of some authors), and the amalgamated subfamily should be known as Cyminæ. Stal (Hem. Afr., ii, 120) relies on the tegmina being wider than the abdomen, and the exterior margin of the corium dilated, while his "Lygæida" have the tegmina not, or only partly, dilated and wider than the abdomen, but the latter is not the case in many forms. I think that *Nysius* is more closely allied to *Cymus* than it is to *Stalagmostethus* and its allies.

Sephora, Kirkaldy.

Sephora, Kirkaldy, 1902, Faun. Haw., iii, 161.

The rostrum barely reaches to the middle coxæ, first segment *not* extending quite so far as the base of the head. Collar feebly marked, pronotum scarcely constricted there, and not constricted again towards the base. Ocelli much nearer to the eye margins than to one another.

1. *criniger* (White).

Cymus criniger, F. B. White, 1881, A. M. N. H. (5), vii, 57.

Sephora criniger, Kirkaldy, 1902, Faun. Haw., iii, 161, Pl. v, f. 45.

The specimens before me agree fairly well with White's description, except as follows: the general colour of the head is paler; the membrane is almost always faintly marked longitudinally with a fuscous stripe, and the rostrum just reaches to the middle coxæ, instead of to the middle of the mesosternum, while the first segment does not reach as far as the base of the head, instead of to the middle of the prosternum. I feel sure White's description is incorrect in this.

Hab.—Lanai and Molokai, as detailed previously; White records it from Maui at 5,000 feet, under stones, but Dr. Perkins informs me that the specimens collected by him were beaten from the branches of trees, where they probably live under moss or lichens.

Nesocymus, gen. nov.

Allied to the last, but the distances between the ocelli, and from an ocellus to the nearest eye margin, are subequal. The rostrum reaches to the middle of the mesosternum, the first segment reaching to the base of the head. Vertex more convex, and eyes larger. Pronotal collar more marked, the pronotum exteriorly rounded after this, and divided into two parts by a median transverse very narrow impressed line.

1. *calvus* (White).

Cymus calvus, F. B. White, 1881, A. M. N. H. (5), vii, 56.

Sephora calvus, Kirkaldy, 1902, Faun. Haw., iii, 162.

Hab.—Oahu (as previously noted), at roots of herbage in the mountains, from 1,500–2,000-ft. Dr. Perkins has lately collected a series of forms agreeing with White's description, except as follows: there is always a dark, broad, fuscous longitudinal stripe on the membrane (not noted by White), and his rostral proportions do not agree.

Nesomartis, gen. nov.*

Differs from the two preceding genera by the very transverse vertex and substylated eyes, which extend laterally much further than the pronotum; by the ocelli as close to one another as to the eye margins, and being close to the anterior margin of the pronotum (they are somewhat distant in the other genera), by the elongate, collarless pronotum, whose lateral margins are straight and scarcely divergent. Tegmina scarcely punctured. Rostrum reaching middle coxæ, mesosternum rather deeply sulcate posteriorly.

N. psammophila, sp. nov.

Pale greenish, drying to testaceous, with sparse whitish-pubescence, a lævigata elongate spot on each side of the pronotum anteriorly.

**Nesos*, island, *martis*, maiden.

Scutellum with a percurrent fuscous longitudinal line extending to apex of clavus. Tegmina hyaline, each with a median longitudinal fuscous streak, which converge on the membrane when the tegmina overlap in repose. Fourth segment and apex of second segment of antennæ fuscous. Metanotum and tergites dark fuscous, margined laterally with testaceous. First segment of antennæ reaching just beyond head, second segment about $4\frac{1}{2}$ times as long as the first, and about as long as the incrassate fourth, which is a little longer than the third. Length, $4\frac{3}{4}$ mm.

Hab: Oahu, on the coast on the ground amongst *Sida* and other plants (R. C. L. P.); Hawaii, Kona coast in similar situations (R. C. L. P.). The Hawaiian specimens have the second and fourth segments of the antennæ each five times as long as the first, but do not otherwise differ appreciably from the typical Oahuan.

1. *Orthæa nigriceps* (Dallas).

(= *Orthæa nigriceps*, Kirkaldy, olim.)

F. B. White, on Blackburn's authority, states that this species does not occur below about one thousand feet above sea level, but that was probably a mistake then, and certainly is so now, as it comes at night to light in houses from sea level upwards. It occurs also in Tahiti and the Philippine Isles. Mayr recorded it from New Zealand, but White, on the strength of an allied form (*Douglasi*) from the latter country, considered Mayr's record erroneous. Distant has now, however, considered *Rhyparochromus inornatus*, Walker, from New Zealand, to be a variety of *O. nigriceps*, and if Distant's identification be correct, it is probable that Mayr's New Zealand forms were actually *O. nigriceps*.

2. *O. periplanios*, sp. nov.

This pretty little species is much smaller and less robust than the preceding; it does not fit into either of Stal's primary groups of "*Pamera*," being removed from "*a*" by the anterior lobe of the pronotum being very distinctly transverse, from "*aa*" by the said lobe being very slightly narrower than the head. It is probably allied to *vincta*, Say, but has unicolorous, dark ochraceous fore femora.

Black, with silvery-gray pubescence; first three segments of antennæ, the rostrum and legs ochraceous, fore femora darker ochraceous, last segment of rostrum dark. Tegmina yellowish-testaceous, strongly punctured with dark brown, costal margin paler, immaculate, except the apical margin; apical margin of corium broadly but unevenly blackish-brown, sometimes extending a little way along the inner margin, a white spot at the inner posterior angle. Membrane pale, with several longitudinal pale smoky streaks. Head distinctly longer and slightly wider than

the anterior lobe of the pronotum; first segment of antennæ reaching beyond the head, fourth segment the longest, fusiform; rostrum reaching to the fore coxæ. The collar well marked, not as wide as the anterior lobe; the latter nearly twice as wide as its length, laterally rounded, basally very slightly wider than in front; posterior lobe finely but sparsely punctured, raised and rounded behind, scarcely shorter medially than the anterior lobe, very distinctly wider than the head, its lateral margins diverging at first obtuse-angularly, then turning sharply parallel with the long axis of the body; posterior margin very lightly emarginate. Scutellum medially carinate on the posterior two-thirds. Fore femora incrassate and spinose, tibiæ not toothed, but apically a little widened and subbid.

Length, ♂, $3\frac{1}{8}$ mm.; ♀, 4 mm.

Hab.: Hawaiian Archipelago (introduced), now spread over Kauai, Kekaha (F. W. T.); Oahu, from sea level to Mt. Tantalus, 1,500 feet (R. C. L. P., W. M. G., G. W. K.); Maui, Olowalu (O. H. S.); comes frequently to light.

In examples not fully matured the collar and posterior lobe of pronotum may be dark ferruginous, instead of black.

The types (♂ ♀) are in my collection.*

Fam. REDUVIIDÆ.

Triatoma rubrofasciatus, DeGeer.

Probably originally a native of Brazil, now widely distributed. It is found in these Islands near cottages of the poorer sort.

Zelus peregrinus, Kirkaldy.

Mr. O. Heidemann has (*in litt.*) identified this as identical with *Z. Renardii*, Kolenati (1856, Bull. Soc. Nat. Moscou, XXIX, 460, Pl. III, fig. 2), from California, but I am not disposed to admit it on present evidence. Kolenati's figure is useless, and he states that the apex of the femora and base of the tibiæ are intensely sanguineous, which I do not consider them to be, at least noticeably. The anterior lobe of the pronotum is also not very distinctly quadrituberculate, nor is the abdomen entirely lurid. *Z. Renardii* has not to my knowledge been redescribed since 1856.

Milu, gen. nov.†

Differs from *Reduviolus*, W. Kirby, by the incrassate first segment of the antennæ and the prominent blunt spine arising well in front of the antennal insertion from the side of the head, which I formerly overlooked, but which has been pointed out to me by Dr. Perkins.

*Since writing this I have seen specimens from Australia and Viti.

†*Milu* is the Hawaiian ruler of the dead.

1. *kerasphoron*, nom. nov.

= *Reduviolus rubritinctus*, Kirkaldy, nec Blackburn. The latter has the incrassate antennæ, but as the head spines are not mentioned it cannot yet be included in *Milu*. *M. kerasphoron* is very much like *R. sharpianus*, Kirkaldy, in pattern.

SUMMARY :

- Sephora criniger* (White.)
Nesocymus (n.g.) *calvus* (White).
Nesomartis (n.g.) *psammophila*, n. sp.
Orthæa nigriceps (Dallas).
O. periplanios, sp. nov.
Triatoma rubrofasciatus (DeGeer).
Zelus peregrinus (Kirkaldy).
Milu (n.g.) *kerasphoron*, sp. n.

NOTES ON CENTRAL AMERICAN HEMIPTEROUS FAUNA.

BY G. W. KIRKALDY, HONOLULU, HAWAIIAN ISLANDS.

While preparing his account of the Homoptera of Central America (*Biologia Centrali Americana*, Rh. Hom. II), Mr. Distant must have neglected to refer to the third part of Stal's "Analecta hemipterologica" (1869, Berlin Ent. Zeit., XIII, 225-42), as he has omitted mention of four species therein described; these are as follows:

Aphrodisias (= || *Compsoptera*) *cacica*, Stal; *Acmonia anceps*, Stal; *Cyrpoptus nubeculosus*, Stal, and *C. ferruginosus*, Stal, all from Mexico.

In the *Annals and Mag. Nat. Hist.* (7), XVIII, 193 (1906), Mr. Distant twice quotes his genus "*Amilavaca*" (as a syn. of *Echetra*); this was, however, originally written *Amalivaca*.

In the same volume of the "Biologia" Dr. Fowler has redescribed *Scolops*, Germ., under the name of *Ornithissus*, incorrectly placing it in the Issidæ. *S. Cockerelli* seems to be a good species (p. 122).

I have not seen specimens, but the descriptions and figures, as well as comparison with *Mistharnophantia*, Kirkaldy, lead me to believe that *Hypancylus*, Fowler (p. 114), is a Poekillopterine, not an Issine.

Of the two Fulgoroids considered uncertain by Dr. Fowler, *Rhotala* is an Achiline, while *Syntames* is a Derbid, his *delicatus*, var. *chiriquensis* (p. 139), being a good species.

In the Cicadidæ, Mr. Distant's new name of *Germari* (p. 140) for *Proarna* || *grisea* (Germar) is unnecessary, as on his own showing there are other names available. The insect should probably be known as